1. COALITION C2 ■

2. COALITION INFORMATION SHARING

Continued next page







#### TRIALS QUICK LOOK CONTENTS PAGE

# Interoperability Trials

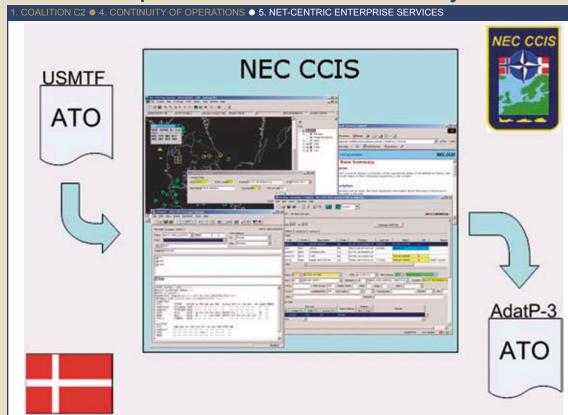
Coalition Warrior Interoperability Demonstration trials for 2006 are listed in trial number order below, cross referenced to sites where they can be observed during the demonstration 12 to 21 June.

3. INTEGRATED LOGISTICS ■ HANSCOM 4. CONTINUITY OF OPERATIONS ■ 5. NET-CENTRIC ENTERPRISE SERVICES ■ GOVERNMENT/ GOVERNMENT SPONSOR OBJECTIVE/S ADDRESSED CORPORATE DEVELOPER/S TRIAL NO. SYSTEM TITLE IT01.01 Northern European Command - C2 NATO Denmark **5**, 1, 4 3 Information System (NEC CCIS) Denmark IT01.14 U.S. Chemical Biological Joint Project Radiological and Nuclear Manager Infor-Modeling (USCBRNM) mation Systems (JPM IS); UK JPM IS, Dstl Defense Science International 3 & Technology Task Force 49 Laboratories (Dstl), International Task Force 49 IT01.15 C4I Defense П П П П П C3I Consortium, SELEX-SI Italy 1,4 4 SpA IT01.20 Integrated Information US Air Force US Army, AFRL 1 5 4 Management System IT01.28 Canadian Air Mission Management Suite (MMS) П П П П Canada Force, ATESS 1 5 Trenton IT01.34 Mobile / Static Real-Time Ra-П Dr. Robert diological Surveillance Network Canada 1 5 McFadden (MobRadNet) IT01.39 FIRST Responder INTERoperable П **USNORTHCOM COMMunications BAE Systems** 6 (First InterComm™) National Guard National Guard IT01.48 **Emergency Response Coalition** 6 - Common Operating Picture Bureau Bureau IT01.50 Multinational Interoperability Toolkit П 7 **US Navy SPAWAR** IT01.53 Coalition and Civil Agency Capable General П П Dynamics C4 Wireless Information Transfer **US Navy** 1.3 7 System (C3WITS) Systems IT01.54 Coast Guard C2 (Deepwater COP) Lockheed Mar-**US Coast Guard** 1 8 tin Corporation MobileForcesSolution IT01.62 German Navy, (MOFS / MCCIS) T-Systems Germany 1, 4, 5 8 Enterprise Services GmbH

For a trial Fact Sheet of short summary paragraphs, go to http://199.57.1.137/public/CW06SoundBites27Apr06.doc

		EUCOM NORTHCOM DAHLGREN SPAWAR HANSCOM AUSTRALIA CANADA NEW ZEALAND UNITED KINGDOM										OBJECTIVES KEY  1. COALITION C2 ■  2. COALITION INFORMATION SHARING ■  3. INTEGRATED LOGISTICS ■  4. CONTINUITY OF OPERATIONS ■  5. NET-CENTRIC ENTERPRISE SERVICES ■  GOVERNMENT/			
TRIAL NO.	SYSTEM TITLE	EU	NO	DA	, dS	HA	AU	CA	NE	22	MA	GOVERNMENT SPONSOR	CORPORATE DEVELOPER/S	OBJECTIVE/S ADDRESSED	PAGE NO.
IT01.63	IPC Information Systems, LLC Multimedia Command and Control Solution (MCCS)		П									FEMA	IPC Command Systems	1	9
IT02.21	The Multi National Coalition Security System (MNCSS)				F	Ē	Г	П	•	•		Canada	Titus Labs, Microsoft Corp.	<b>2</b> , 5	9
IT02.24	M3Data Information Sharing System (M3Data ISS)											Canada	ARTIS	1	10
IT02.25	Distributed Common Ground System ( DCGS)			•		•				•		US Air Force	Raytheon Intelligence and Information Systems	2	10
IT02.45	Command Center Portal Framework (CCPF)											Canada	xwave	2	11
IT03.09	Document Access Servelet (DAS)	•	•		•	П			-		П	USEUCOM	Information Security Corpo- ration	5	11
IT03.16	Intelligent Road/Rail Information Server (IRRIS)			П	П		П					US Army	US Army, GeoDecisions	<b>3</b> , 5	12
IT04.03	Wide Area Interoperability System (WAIS) and ACU-1000		•									USNORTHCOM	Raytheon JPS Communica- tions	<b>1</b> , 2	12
IT04.33	Logik v3.0 for Rapid Intelligence Analysis and Exploitation	•	•	•						•		Canada	Coredge Soft- ware, iFathom Corpo- ration	4	13
IT04.36	Global Broadcast Service (GBS)		П	П					П			DISA	GBS JPO	<b>1</b> , 4, 5	13
IT04.46	Joint C4 Coordination Support System (JCCSS)											National Guard Bureau	National Guard Bureau	1	14
IT04.61	MCCIS-I				•						•	Italy	Italy, Canada, NATO ACT, Engineering SpA Rome	1	14
IT05.06	Visualization for Information Assurance (VIA)			П					П			US Air Force	Applied Visions, Inc.	<b>5</b> , 1, 2	15
IT05.13	Coalition Command Collaboration Services (CCCS)							П				Australia	Microsoft Corp.	<b>4</b> , 1	15
IT05.17	WMD Collaborative Advisory Response System (WMDCARS)											USNORTHCOM	DTRA	<b>1</b> , 5	16
IT05.32	Guard Net Portal (GNP)	•	•	•	•							US Navy	Tidewater Technology Group	<b>1</b> , 5	16
IT05.37	Joint Effects Based Command and Control (JEBC2)											USNORTHCOM	The Boeing Company	<b>1</b> , 2, 3, 5	17
IT05.41	Knowledge Management Framework							П				Canada	Lockheed Mar- tin Corporation	5	17
IT05.47	HLS-HLD Collaborative Information Exchange Environment (HLS-HLD CIEE)		П	Г								National Guard Bureau	National Guard Bureau	1	18
IT05.51	FORCEnet Distributed Channel Services (FnDCS)	•	•	Г	П		П			•		US Navy	Lockheed Mar- tin Corporation	<b>5</b> , 1	18
IT05.52	Rapid Triage Medical Workbench (RTMW)											USNORTHCOM	AMITA Corpo- ration	<b>5</b> , 3	19
IT05.66	Coalition Shared Information Environment (COSINE)	٠					П					NATO	NATO NC3A	<b>2</b> , 5	19
NOTES															20

## **Northern European Command C2 Information System**



SPONSOR: Denmark
DEVELOPER: NATO;
Royal Danish Air Force;
Norway
CONTACT: CIS Planning
Reach Tel: +45 0710 155

**CONTACT:** CIS Planning Branch Tel: +45 9710 1550 ftk@mil.dk

NEC CCIS is a tri-service C2IS sponsored by NATO, Denmark and Norway. The architecture is a three tier construction with an Oracle database, an application server and an XML-based client.

NEC CCIS offers a number of interfaces e.g. USMTF, ADatP-3, OTH-GOLD, Link1, ICC.

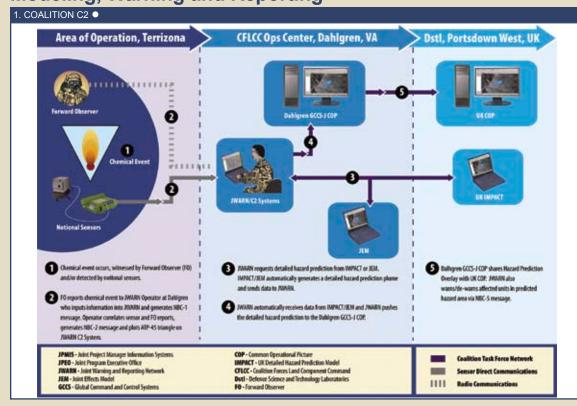
NEC CCIS is able to map dedicated messages into the database e.g. ATO.

The non-realtime part of NATO ACCS is based on NEC CCIS technology.

NEC CCIS will enhance the use of provided air power from the Royal Danish Air Force in GWOT and other relevant campaigns. NEC CCIS is usable from HQ level through CAOC to CRC, Wing and Squadron level.

#### ITO1 1*4*

## Future Coalition Chemical, Biological and Radiological Modeling, Warning and Reporting



#### SPONSORS/DEVELOPERS:

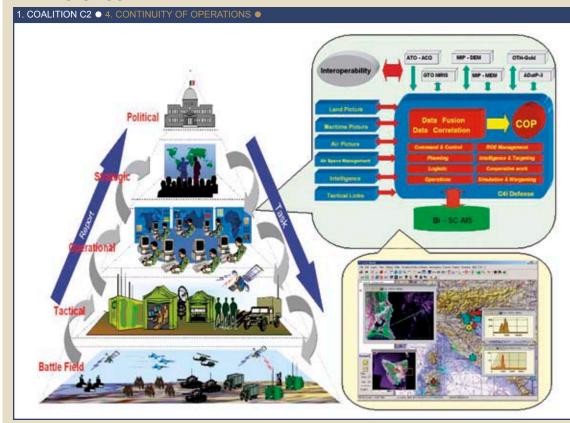
Joint Project Manager Information Systems (JPM IS); UK Defense Science & Technology Laboratories (Dstl), International Task Force 49 CONTACT: Kipp Lawson kipp.lawson@jpmis.mil

Trial demonstrates and develops interoperability of future US, UK and Canadian chemical, biological, and radiological (CBR) warning, reporting and modeling capabilities within a multinational, coalition environment

JPM IS, under the Joint Program Executive Office for Chemical and Biological Defense (JPEO CBD) developed two systems: the Joint Effects Model (JEM) and the Joint Warning and Reporting Network (JWARN). JEM is a CBRN modeling program for common representation of CBRN hazards. JWARN collects, analyzes, identifies, locates, reports and disseminates NBC warning messages.

JEM and the IMPACT CBRN modeling system are an enterprise service in CWID. JWARN makes hazard prediction requests of both JEM and IMPACT, displaying predicted hazards to the decision maker.

## IT01.15 C4l Defence



#### SPONSOR:

Italy Defence General Staff **DEVELOPER:** C3I Consortium (SELEX-SI SpA SELEX Communications SpA)

CONTACT:

Mr. Roberto Lazzari SELEX-SI SpA +39.06.4150.3838 rlazzari@selex-si.com

Italian C4I Defense Joint System has been designed to provide top-level strategic capabilities, laying above the tactical functionalities offered by the C2 systems of each Service

Trial objective is to test data and information exchanging capabilities with the other NATO/PfP/US, Joint & Single Service C2 Systems, by supporting high level C2 capability and COP exchanging.

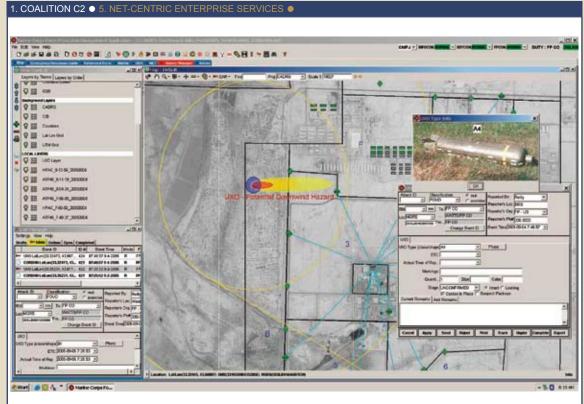
C4I Defense joint system

C4I Defense joint system tests its capability of sharing COP in a multilateral environment, through formatted messages in OTH-Gold, ADatP-3 and USMTF 2000 standards.

Italian Joint Operation HQs and its Staff can share COP and improve their situational awareness in a multinational environment.

#### IT04 20

## **Integrated Information Management System**



**SPONSOR:** US Air Force **DEVELOPER:** Army ECBC; AFRI

**CONTACT:** Lena Pfluke pflukel@rl.af.mil

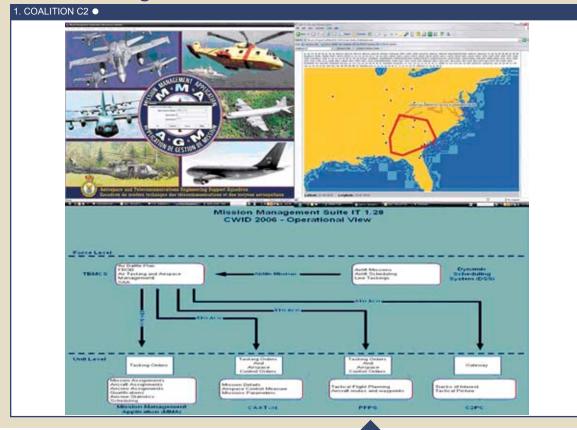
IIMS helps fixed, expeditionary and incident response sites plan for, protect against, continue operations during and recover from chemical, biological, radiological, nuclear (CBRN) or conventional attacks.

It decreases time needed for site operations to recover from attacks using rapid manual data entry, data transfer across air gap or guard onto a Common Operational Picture (COP) for the Commander and geographically separated Unit Control Centers.

IIMS has evolved from Restoration of Operations (RestOps) Advanced Concept Technology Demonstration (ACTD), Contamination Avoidance Seaport of Debarkation (CASPOD) ACTD, and DTRA JSTO CBD Next Generation Chemical Biological Battle Management (NGCBBM) effort.

Earlier versions have been fielded at PACAF and US-CENTCOM

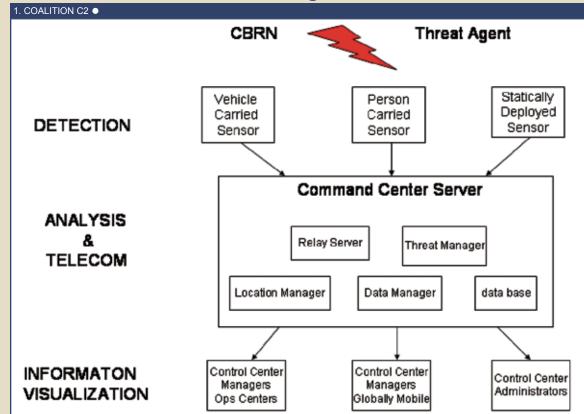
## IT01.28 Mission Management Suite



SPONSOR: Canada
DEVELOPERS: Canadian Air
Force; ATESS Trenton
CONTACT: Capt. Paul Bolduc
bolduc.jvp@forces.gc.ca

MMS is an integrated flexible suite of mission planning tools aimed at supporting Unit Level personnel involved with any Military Mission Planning. The suite offers functions such as aircraft and aircrew scheduling, flight planning, aircraft and aircrew management and cost centre management. MMS helps fill the gap between Force and Unit Level operations. It is a first spiral towards Unit Level automation. MMS will also provide interesting capability in support of airlift.

## IT01.34 Mobile/Static Real-Time Radiological Surveillance Network



sponsor: Canada DEVELOPER: Dr. Robert McFadden CONTACT: Dr. Robert McFadden

The MobRadNet provides a real-time understanding of the radiological environment in which a task force is operating and enables sharing of a common view of the specific radiological context in which operations are being conducted. Consistent and reliable radiological data is obtained by the autonomous operation of a rapidly deployable/redeployable network of gamma sensors capable of unattended operation whether mobile (vehicle or person carried) or static. The utility of the availability of real-time numeric radiological data is amplified by the transformation of this data into graphic information for Operations Center use. Graphic information includes:

- **1.** Real time sensor deployment and radiological data
- 2. Radiological survey coverage
- Replay of time evolution of radiological data over a selected time range.

## **FIRST Responder INTERoperable COMMunications**



sponsor: USNORTHCOM DEVELOPER: BAE Systems CONTACT: Mike Greene, FirstInterComm @baesystems.com

#### FirstInterComm™

- Shoebox-sized device mounted inside first responder vehicles that links all vehicles at an incident scene
- operates on vehicle power
- no major infrastructure investment
- No tower required
- Automatically creates temporary networks for interoperability
- Scales to the size of the incident
- Connects civil and military radios
- Digital solution compatible with latest (P-25) radios
- Talk Groups eliminate distraction of unrelated chatter
- Useful every day; allows responders to use their familiar portable radios

## Coalition Incident Response - Common Operating Picture

1. COALITION C2 • Web-enabled updates of HLS HLD COP National Guard Data Layers National Guard 2. National Guard and Interagency Geospatial Browser National Guard Geo-coded Data Layers and GIS Visualization Geospatial Browser 3. Enables Incident-Focused NG JFHQ State Common Operational Picture USNORTHCOM Task Forces Incident Data National Guard Joint Information Exchange System Functions: 1) Provide access to Environment incident response data in a common format across mission partners 2) Enable shared National Guard awareness and common operational picture 3) Enhance Operational Tempo and Decision Geospatial Browser **National Guard** Making relative to Mission and emergency scenario 4) Provide geo-referenced data visualization Interagency **Partners** National Guard (USCG, FEMA, etc) Geospatial Browser Geo-coded Data Layers available to NGB Incident support mission coordination and Data Joint Operations incident response over Joint Information Center Exchange Environment (JIEE)

SPONSOR: NGB
DEVELOPER: Maj. Charles

CONTACT: Maj. Charles Pedigo, charles.pedigo@ ngb.army.mil

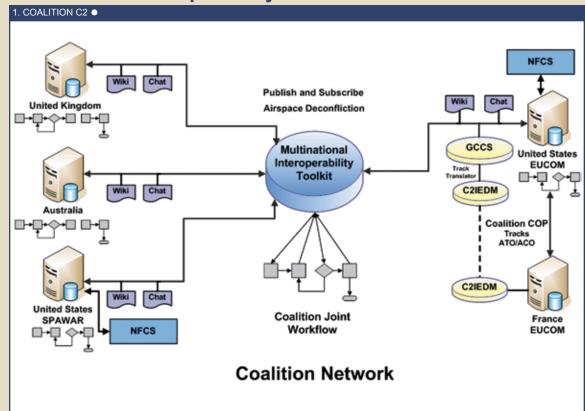
Pedigo

CIR – COP is a National Guard – managed trial focused on enabling an incident-focused common operational picture (COP) readily shared within the National Guard and with mission partners.

This trial supports National Guard and interagency testing of a baseline GIS environment and procedures designed to provide enhanced situational awareness required for critical C2 and coordination in response to incidents.

This capability requirement was identified in the USNORTHCOM – National Guard Bureau Joint CONUS Communications Support Environment (JCCSE) Concept for Joint C4, and is being developed as part of an overall Joint Information Exchange Environment (JIEE) capability to support HLD/DSCA missions.

## **Multinational Interoperability Toolkit**



**SPONSOR:** US Navy **DEVELOPER:** TTCP C3I AG4;
DGA France **CONTACT:** Barry Siegel

**CONTACT:** Barry Siegel barry.siegel@navy.mil

The Multination Interoperability Toolkit (MIT) provides a set of capabilities that will enhance coalition interoperability in a tactical environment. MIT, using information management technologies, combines the strengths of formal messaging and informal collaboration to create a workflow-enabled coalition enterprise.

The components of the MIT support multinational interoperability by providing a) Publish and Subscribe and Web Services infrastructure to support the exchange of the Common Operational Picture and other C2 data, b) a translation layer to and from the Multinational Interoperability Programme C2IEDM data model, c) interoperability between XML, C2IEDM and the family of Global Command and Control systems based on the DISA Common Operating Environment Version 4.

#### IT01.53

## **Coalition & Civil Agency Capable Wireless Information Transfer**



**SPONSOR:** USAF/FBI **DEVELOPERS:** General Dynamics C4 Systems **CONTACT:** Carol Real carol.real@gdc4s.com

C3WITS is a Software Defined Radio (SDR) system providing:

- Assured Blue Force Tracking
- Common Situational Awareness Picture for airborne or ground based command and control
- Bridging and range extension between dissimilar radios
- Secure video teleconference for real time interactive command and control
- Embedded NSA Certified COMSEC

Xenon Radio is an advanced handheld SDR providing:

- Interoperability with:
- Federal and Civilian APCO P25 radio systems
- Cellular Telephone GSM
- Covert Communication
- Extensible Architecture:
- Software Definable
- Modular Construction allows
- Technology Insertion
- Open LINUX OS
- Type 1 Ready
- Color graphical display
- GPS Position and Velocity
- USB Data port

## **Coast Guard C2 (Deepwater Common Operational Picture)**

1. COALITION C2 ●



SPONSOR: USCG
DEVELOPERS: Lockheed
Martin Corporation
CONTACT: Jim Schreiber,
Technical Director,
856.359.3828
james.schreiber@lmco.com

CG-C2 is a common operating system developed for the U.S. Coast Guard, part of the Integrated Deepwater System program. CG-C2 provides interoperable command & control as well as the foundation for integrating intelligence data across all Deepwater aircraft, vessels and shore facilities.

From regional command centers to shipboard and airborne systems, the Deepwater program delivers interoperable C4ISR capabilities, increasing USCG's operational effectiveness and intra/interagency communication by maximizing data and voice sharing among watchstanders, decision makers and operators.

CG-C2 core capabilities demonstrated in 2006 include:

- Tactical Display Overview
- Deepwater Portal
- Common Operating Picture
- Common Collaboration Tools
- Case File Management
- Automated Status Systems

## IT01.62

### **Mobile Forces Solution**

Secure broadband satellite communication to ship and secure SubNet Relay via HF/UHF, DVB-T and WLAN

Pop Euskirchen
Crypto
Device

Pop Lillehammer

Systems

Marine

SPONSOR: Germany
DEVELOPERS: German Navy;
T-Systems Enterprise
Services GmbH
CONTACT: Gerhard J. Webler

+49 (228) 709.38204 gerhard.webler@t-systems. com

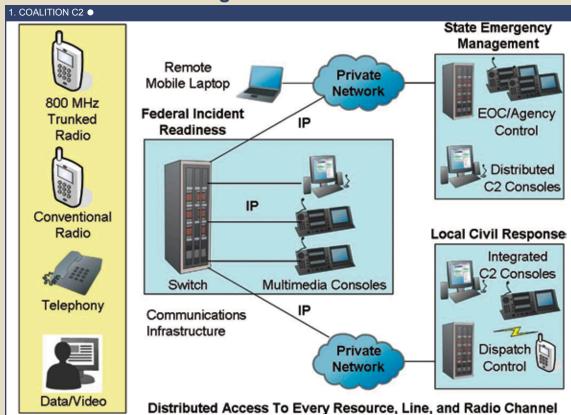
MOFS is a secure broadband satellite communication to ship and secure SubNet Relay via HF/UHF and WLAN.

CWID Objectives Met: A distributed IP-Infrastructure with secure broadband satellite communication for the use of MCCIS, ICC, email, VoIP and Video Conference.

**Provides:** Maritime, Air and Joint C2 Services

**Status:** practise proofed running demonstrator with experimental SubNet Relay functionality

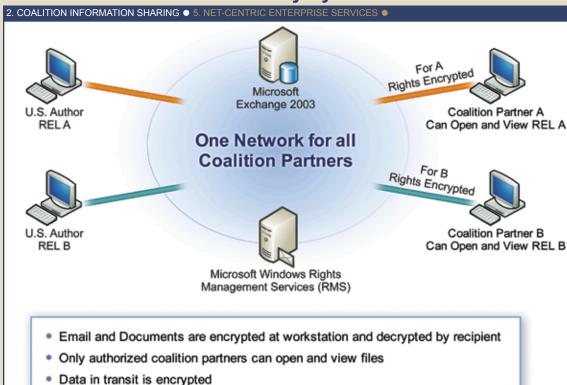
## IPC Multimedia Converged Communications Solution



**SPONSOR:** US FEMA **DEVELOPER:** IPC Command Systems **CONTACT:** Kevin Sumrell 917.584.5205 kevin.sumrell@ipc.com

The MCCS is an IP-based audio interoperability platform that enables operators to rapidly and effectively gather information, collaborate with stakeholders and broadcast an optimized plan of response. Enhanced situational awareness is achieved converging multiple, disparate communications medium seamlessly into a common network infrastructure. The MCCS consolidates Land Mobile Radio, VoIP, Multi-Site Net-Centric Intercom, and Advanced Telephony functionality enabling LAN/WAN access to critical information in a time sensitive manner. Deployed globally in mission critical environments, the system provides very high voice quality, scalable party conferencing, internal IP network audio broadcast, and the ability to display and share data and video simultaneous with voice. The MCCS consists of front / back office components and several form factors

## Multi National Coalition Security System



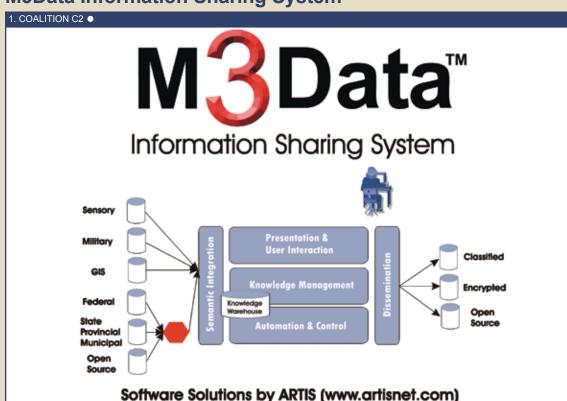
**SPONSOR:** Canada, USSTRATCOM **DEVELOPERS:** Titus Labs; Microsoft Corp.

**CONTACT:** Charlie Pulfer charlie.pulfer@titus.com

The MNCSS enables persistent control of email, documents, and files for information sharing among different communities of coalition forces on a single common secure network. It provides mandatory classification marking of all Emails, attachments and MS Office Documents. Users must select the classification, release and program caveats (if applicable. e.g., SECRET/ REL US// OPERATION THUN-DERBALL) for all newly created documents and E-mails. Microsoft's Rights Management Services (RMS) enables assignment of digital rights to persistently control data files (email and documents) including the ability to view, modify, print, and distribute files. RMS will encrypt files based on the markings to create a robust environment for role/community-of-interest-based information access by users. This capability operates within the familiar MS Office desktop environment.

### IT02.24

## **M3Data Information Sharing System**



System Integration by iFathom Corporation (www.ifathom.ca)

sponsor: Canada DEVELOPER: ARTIS CONTACT: Paul Relf paul.relf@artisnet.com Chris Skaarup, chris.skaarup@ifathom.ca

M3Data Information Sharing System (www.artisnet.com) provides secure, intelligent middle-ware to simplify inter-agency information sharing, interoperability for Command & Control, and contextual access to any information asset to support situational awareness and enhanced decision making. System Integration and Defence sponsorship (C4 ISR) is provided by iFathom Corporation (www.ifathom.ca).

IT02.25
Distributed Common Ground System



**SPONSOR:** Canada **DEVELOPERS:** Raytheon
Intelligence and Information
Systems

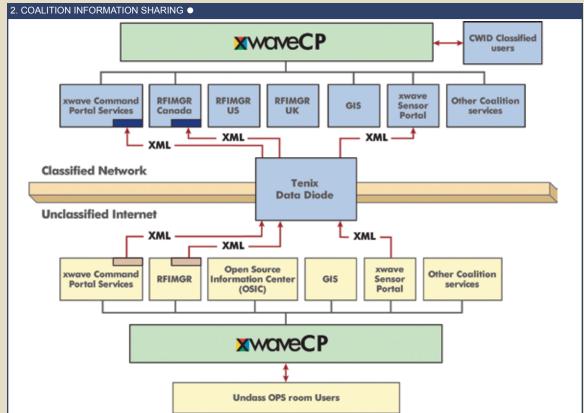
**CONTACT:** Mark Gilbert, mark b gilbert@raytheon.com

DCGS is a globally integrated, distributed and collaborative information technology enterprise. DCGS provides continuous on-demand intelligence brokering to achieve full spectrum dominance so that American and coalition forces can change the course of events in hours, minutes or even seconds. The environment provides physical and electronic distribution of Intelligence, Surveillance and Reconnaissance data, processes and systems.

Current ISR assets are partitioned, restricting interoperability in Joint and Coalition environments. DCGS overcomes these obstacles enabling current data to be posted to the network for immediate use by analysts and warfighters. Integrated with other assets, it produces situational knowledge of the battlespace.

From space to ground to under the sea, DCGS is the foundation of the global C4ISR enterprise.

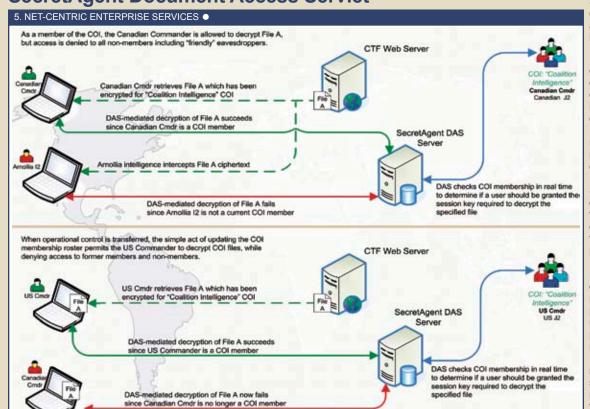
## Command Center Portal Framework



**SPONSOR:** Canada **DEVELOPER:** xwave **CONTACT:** Graham Estey graham.estey@xwave.com 613.831.0888

CCPF is a collection of applications that can be the foundation of a Command & Control, Co-ordination Centre or Collaboration system. The framework allows coalition command staff to create, organize, share, discover, task and brief information about specific tasks. The framework supports, extensive connectivity to systems & data, staff efficiency, collaborative planning and shared situational awareness. For CWID the system will bring together three applications into a single web based portal. These application are xwaveCP (situational awareness portal), OSIC (opensource intelligence center), xwaveRFIM (Request for Information Manager).

## SecretAgent Document Access Servlet



SPONSOR: USEUCOM
DEVELOPERS: Information
Security Corporation
CONTACT: Andy McDermott
andy.mcdermott@
infoseccorp.com

DAS facilitates sharing of encrypted documents within dynamic communities of interest (COIs), enabling coalition information sharing in rapidly changing scenarios.

DAS allows updated document access rights to reflect real-time COI membership changes.

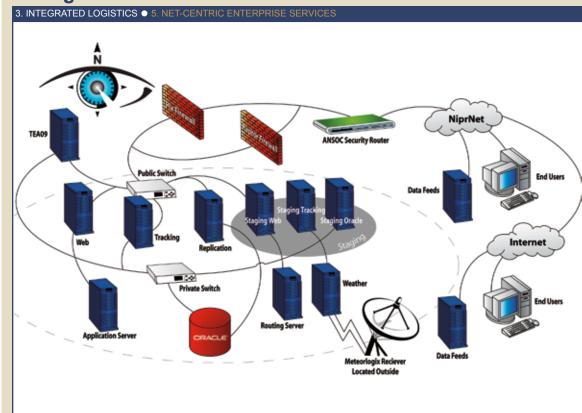
DAS, in combination with SecretAgent, protects all types of files, at rest and/or during transmission, independent of document storage and network transport mechanisms employed by COIs.

This trial demonstrates how DAS can be used to expedite distribution of sensitive documents to COIs. The trial also proves the solution's ease of use and ability to reflect and protect COI access changes in real-time.

SecretAgent DAS enables sharing and protection of sensitive data in transit and/or at rest, while maintaining real-time control over access rights to secured data.

### IT03.16

## **Intelligent Road/Rail Information Server**



sponsor: US Army DEVELOPER: US Army; GeoDecisions CONTACT: Jim Burak iburak@geodecisions.com

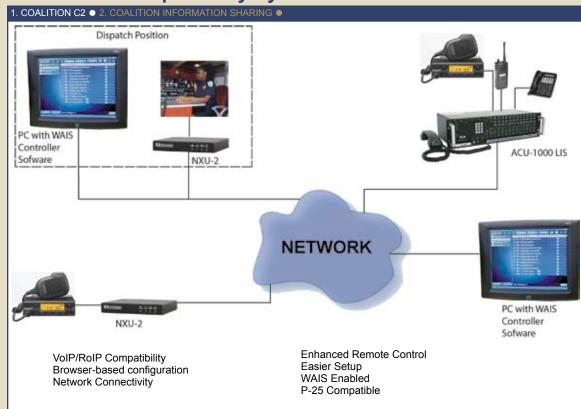
IRRIS is a fully secure, Web-accessible, geographic information system (GIS) that tracks critical supply chain assets and provides a common operating picture (COP) for the shipment of goods. IRRIS is the only one-stop shop on the Web that provides Total Asset Visibility and In-Transit Visibility for shipping and logistics with real-time GPS tracking. The system leverages open-architecture technology to provide a simple mapping interface, which is as easy to use as Internet Explorer.

IRRIS has a suite of functionality from which the user can choose, to include:

- Geospatial Data and Detailed Mapping
- Asset Tracking (Total Asset Visibility & In-Transit Visibility)
- Vehicle Routing
- Live Data and Alerts
- Alerts and Notifications
- Plume Analysis

#### IT04.03

## Wide Area Interoperability System and ACU-1000

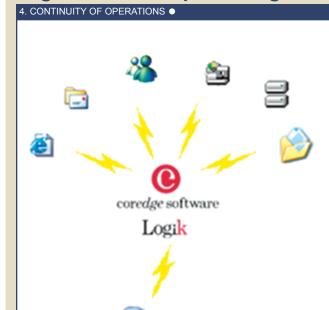


sponsor: USNORTHCOM DEVELOPER: Raytheon JPS Communications CONTACT: Brian White brian.white@jps.com

WAIS and ACU-1000 - As the industry leader in interoperable communications with hundreds of customers and more than a thousand units in the field, Raytheon JPS is committed to supplying the most advanced communications interoperability technology available. The ACU-1000, recognized for providing onscene interoperability, can now seamlessly link radios, SATCOM, cellular, WiFi and landline phones directly and over IP networks, and provide unsurpassed local, regional, state, and wide-area interoperability. From homeland security to local public safety, from mission critical military applications to the latest commercial requirement, the ACU interoperability technology offers a robust and proven communications solution for incident command management.

#### IT04.33

## Logik v. 3.0 for Rapid Intelligence Analysis and Exploitation



## Logik's lightning speed:

- Rapid Intelligence Development
- Rapid Intelligence Analysis
- Rapid Intelligence Exploitation

Timely Intelligence Threat Prevention SPONSOR: Canada
DEVELOPERS: Coredge
Software; iFathom Corp.
CONTACT: Gabriel Cassis
gcassis@coredge.com
Chris Skaarup
chris.skaarup@ifathom.ca

Logik My/Workgroup Edition quickly processes large quantities of text data to support rapid intelligence analysis and exploitation. Logik's capabilities lead to timely and improved situational awareness for Combat Operations, Threat Assessment, Counter-Intelligence, Counterterrorism, Intelligence Collection Planning, and Identification of Intelligence Gaps. Logik processes information in eight languages including English, French, German, Dutch, Spanish, Portuquese, Japanese, and Arabic. Additional languages can be added. Logik can [machine] translate summaries and documents into seven languages including English, French, German, Italian, Japanese, Spanish and Portuguese. System Integration and Defence sponsorship (C4 ISR)is provided by iFathom Corporation. www.ifathom.ca

### IT04.36

### **Global Broadcast Service**

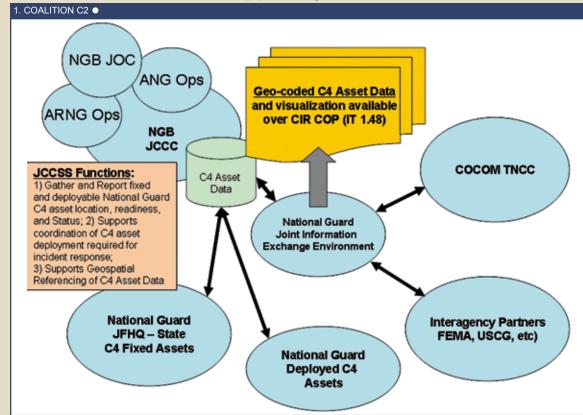


sponsor: DISA DEVELOPER: GBS JPO CONTACT: Adam Caimi, caimi\_adam@bah.com, 703.984.0395

GBS will demonstrate a new suite of capabilities and technologies including: Coalition data transport, Man-Packable receive terminals, and Theater data Injection. Further highlighting the system's continued emergence as a relevant tactical communication link for deployed war fighters.

The Theater Injection Point (TIP) enables the ingest of data products from the field in support of both Homeland Defense and the coalition. Tactical Data ingest enhances the combatant commander's capacity to maintain command and control throughout an engagement. Man-Packable receive terminals (~12lbs) deployed in the scenario, further highlight GBS's relevance as a tactical data transport.

## Joint C4 Coordination Support System



sponsor: NGB
DEVELOPERS: Maj. Charles
Pedigo

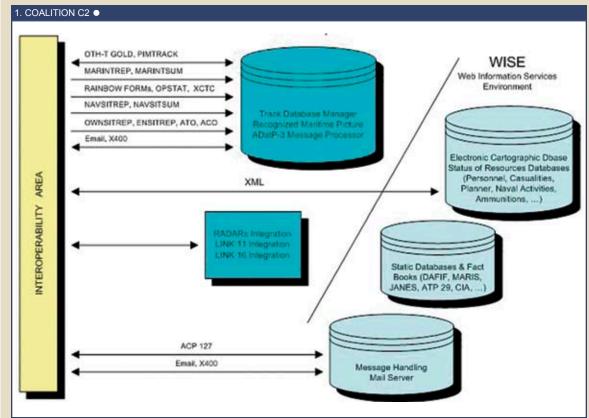
**CONTACT:** Maj. Charles Pedigo, charles.pedigo@ngb.army.mil

JCCSS is a National Guard – managed trial that enables situational awareness of C4 Assets so they may be effectively employed and deployed to support incident response missions.

This trial supports National Guard and interagency testing of a baseline C4 coordination system and procedures designed to provide enhanced situational awareness required for continuity of operations in response to incidents.

This capability requirement was identified in the USNORTHCOM – National Guard Bureau Joint CONUS Communications Support Environment (JCCSE) Concept for Joint C4, and is being developed as part of an overall Joint Information Exchange Environment (JIEE) capability to support HLD/DSCA missions.

## MCCIS-I



SPONSOR: Italy
DEVELOPER: NATO ACT Lab
San Diego; Canada; ENGINEERING SpA. Rome, IT
CONTACT: Lt.Cdr. Sergio
Ciannamea
ciannameas@marina.difesa.it

The system has been developed and maintained to allow the Maritime Commanders and their Staffs to automatically acquire and maintain large quantities of information for display and analysis.

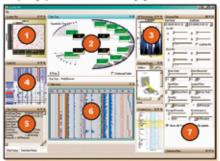
Electronically processes multiple source data, displays the information in various Command and Control (C2) applications and provides users with the ability to manipulate the data to assist Strategic, Operational and Tactical Commanders (and their Staffs) in decision making processes.

MCCIS-Italy will provide RMP, MTF, data and e-mail exchange, testing the capability of the new release 5.1 to be fully interoperable and integrate with other C4I systems within NATO and Coalition Nations.

### **Visual Assistant for Information Assurance**

1. COALITION C2 ullet 2. COALITION INFORMATION SHARING ullet 5. NET CENTRIC ENTERPRISE SERVICES ullet

VIAssist integrates a combination of visualization technologies, allowing the analyst to couple legacy tools with new and emerging visual tools and techniques.



- Scatter Plot for initial analysis
- Star Tree depicts connections between nodes
- Various views of time trends
- Incorporate existing visual tools used by analysts
- O Synopsis of data criteria used to select dataset
- Table Lens' summarizes massive data along multiple dimensions, and drills in to selected data
- Simultaneous filtering of multiple views of data



#### **Key Features**

- Multiple Displays provide global and event-specific situational awareness; allow for individual event analysis together with summarization across the organization
- Role-Based Views support the diverse visualization needs of different analysis roles, providing the right tools for the right job at the right time
- Multiple visualizations of the dataset support evaluation of multiple explanations of interesting activity, self-directed exploration for patterns, and pattern discovery.
- Coordinated Views provides multiple perspectives of the same dataset, enabling exploration of multiple hypotheses and visual correlation across views through simultaneous highlighting and filtering.
- Reporting enables analyst annotations with the e-Diary, and Combines visualizations with analyst findings through the Report Builder. Exports easily to PowerPoint.



Secure DECISIONS A Division of Applied Visions, Inc.

With the dual-monitor interface an analyst can simultaneously filter data in different visualizations to discover patterns, or simultaneously highlight data to support cognitive integration across visualizations.

Developed under the auspices of the Disruptive Technologies Office (DTO) and Air Force Research Laboratory (AFRL), under AFRL Contract #F30602-03-C-0260

**SPONSOR:** US Air Force **DEVELOPER:** Applied Visions, Inc. (AVI) **CONTACT:** Paul Walczak paul@warriorllc.com, 703 967 0419

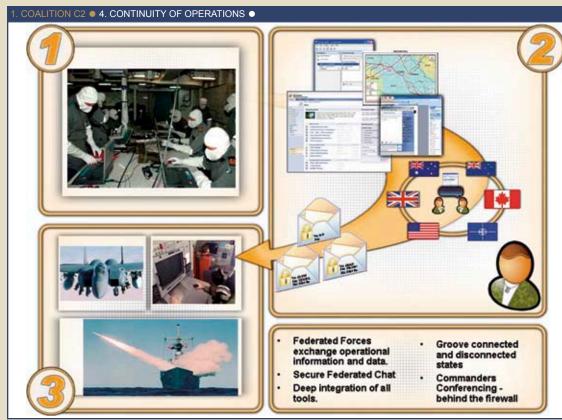
VIAssist is an integrated visualization system used to assess IA data. VIAssist integrates best-of-breed tools to transform arcane network security data into relevant statistical and relational graphics that support the needs of IA analysts as well as operational decision- makers. VIAssist capability increases cyberspace situational awareness, enabling users to make better decisions.

There is no single "silver bullet" for information visualization. NETOPS requires a suite of easy-to-use visual tools to deal with today's onslaught of security information, each tool delivering different styles of visualization capability matched to different analysis goals.

Produced by a team of skilled IA professionals who have been at the forefront in developing and deploying data visualization technologies for network defense operations, VIAssist is the most advanced IA data visualization technology available today.

#### IT05.13

## **Coalition Command Collaboration Services**



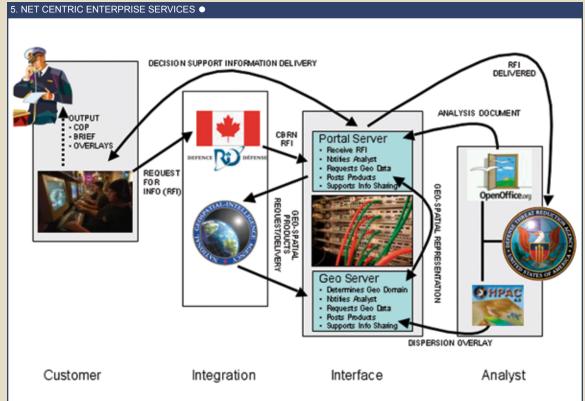
**SPONSOR:** Australia **DEVELOPERS:** Microsoft **CONTACT:** Warren Prentice
wprentic@microsoft.com

Microsoft has implemented the next generation of Coalition Command Collaboration Services (CCCS). This trial will be an enhancement on the capabilities demonstrated within the 5 eyes environment during CWID 2005 IT 4.32.

The broad focus of the trial will be on improved integration of the CCCS solution with next generation information worker capability from Microsoft. The intent is to deliver a Command and Control (C2) console that can be adapted to integrate data from the edge of the network such as weapons and sensors.

CCCS should be considered (not only) as an integrated suite of collaboration tools but also an enablement platform for the integration of C4ISR applications hosted within SharePoint. For example: Using Web Parts, XML, SOAP and .Net patterns and practices.

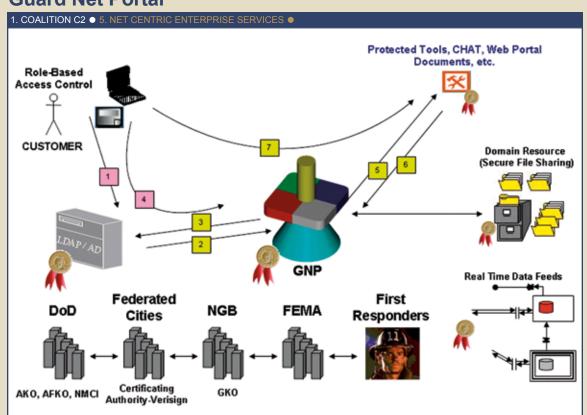
## **WMD Collaborative Advisory Response System**



SPONSOR: DTRA
DEVELOPER: DTRA
CONTACT: Maj. Michael Wall
mwall@cnttr.dtra.mil

The WMD CARS provides DOD, Coalition, and Homeland Security/Defense with an unimpaired information sharing tool capable of providing user access to operational technical expertise required to understand and collaborate in the event of a WMD occurrence. Hostile Chemical, Biological, Radiological Nuclear (CBRN) capabilities present defensive problems requiring in-depth analysis and detailed planning. WMD CARS will enhance decision maker's ability to collaborate and disseminate critical WMD/CBRN information requirements through multi-use open-framework resources for both deliberate and crisis action planning at strategic and operational levels. When a WMD event occurs WMD CARS will fuse dissimilar information, and distribute critical information to the strategic decision maker in order to support consequence management, force protection, and military assistance to civil authorities.

## IT05.32 Guard Net Portal



sponsor: US Navy DEVELOPERS: Tidewater Technology Group CONTACT: Van Zander, vzander@tidewatertechnology. com

The Guard Net Portal provides role-based access to communications media, tools, and documents.

#### FEATURES / BENEFITS

- Single Sign-on: Easy to use, crosses domains
- Unlimited User Tools:
- Access diverse tools securely
   Secure: Data/tool owners
- maintain control
   Role Based: Communicate
- via duty position
   Proximity Based: Provide
- Proximity Based: Provide data only to those who need it most
- Bandwidth Control: Users in the field maintain comms

#### VIRTUAL SWITCHBOARD

- '411': Duty Position Data Base
- Occupations
- 267 standard civilian
- Military from all Services
- Duty Titles
- 2655 Standard
- Civil authorities
- Templates
- U.S. Services
- SJFHQ
- State EOC
- Civilian

### **Joint Effects Based Command and Control**



**SPONSOR:** USNORTHCOM **DEVELOPER:** The Boeing Co. **CONTACT:** Gordon Dietrick gordon.s.dietrick@boeing. com, 719.633.5170

Boeing provides an integrated architecture allowing Coalition, Joint, Federal and Civil Commanders and Analysts to share Command and Control Information to support Planning, Execution and Consequence Management between operational communities.

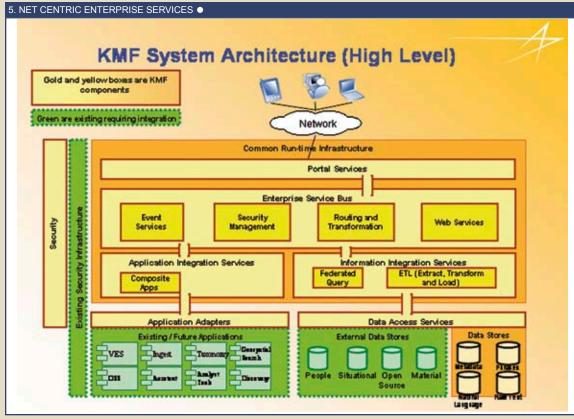
WMI is the Warfighter Machine Interface capability that integrates Mission Applications into a common display.

IM is the Information Management capability that brokers (transfers, filters, and formats) data in a Network-Centric environment.

MI2 is the Multi-level security Information Infrastructure that combines the best in industry Information Management/Information Assurance technologies to allow civil, government, and military communities to securely share information in real-time between classified and unclassified networks.

### IT05.41

## **Knowledge Management Framework**

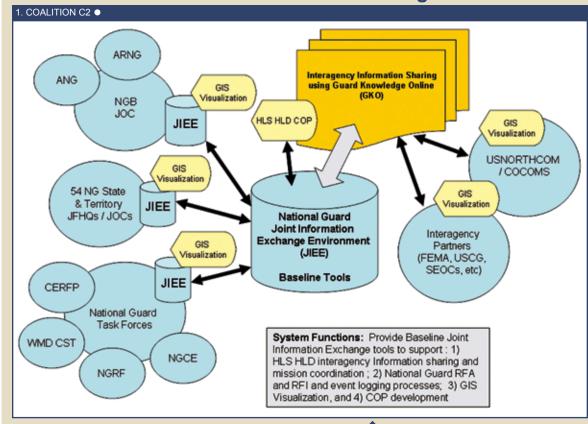


sponsor: Canada
DEVELOPERS: Lockheed
Martin Corporation
CONTACT: Derrick Campbell
derrick.campbell@Imco.com
613.599.3280 ext. 3473

KMF is a framework that integrates several knowledge analysis and exploitation tools under a common portal. Through the use of sophisticated tools in the integrated KMF environment, knowledge workers/analysts can access, discover, and exploit multiple data sources and quickly develop tailored intelligence products for tactical and strategic operations.

KMF provides a data/information centric architecture allowing integration of various sources of information for analysis in a web based, standard environment. The main components of the portal-based KMF are the Ingest and Exploitation System, Metadata Repository, Knowledge Extraction Tools, Integrated Collaboration, and Federated and Geospatial Search.

## **HLS-HLD Collaborative Information Exchange Environment**



**SPONSOR:** NGB **DEVELOPER:** Maj. Charles
Pedigo

**CONTACT:** Maj. Charles Pedigo, charles.pedigo@ngb.army.mil

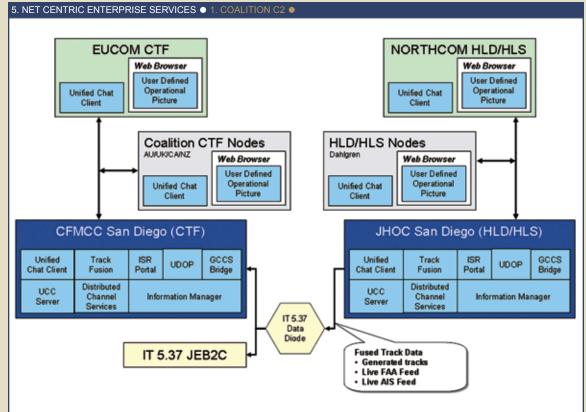
HLS-HLD CIEE is a National Guard – managed trial that demonstrates a joint information exchange environment in support of inter-agency situational awareness, National Guard vertical and horizontal incident information sharing, as well as RFI and RFA processes.

This trial supports National Guard and interagency testing of a baseline netcentric information sharing environment and proceudures designed to provide enhanced situational awareness required for effective HLD/DSCA mission planning and execution.

This capability requirement was identified in the USNORTHCOM – National Guard Bureau Joint CONUS Communications Support Environment (JCCSE) Concept for Joint C4.

#### IT05.51

## **FORCEnet Distributed Channel Services**



**SPONSOR:** US Navy **DEVELOPERS:** Lockheed Martin Corporation **CONTACT:** David Frost david.frost@lmco.com

FnDCS operates across nets, such as the Internet, to support timely decision-making, even for bandwidth-constrained "dial-up" slow modem operations.

Using its distributed channel services and semantic web features/functions, FnDCS enables coalition collaboration with context, time and space relations to:

- improve information assurance
- improve horizontal data access, fusion and integration
- improve vertical and horizontal information distribution in maritime and homeland defense situations.

### IT05.52 **Rapid Triage Medical Workbench**

5. NET CENTRIC ENTERPRISE SERVICES ● 3. INTEGRATED LOGISTICS ● All Hazards Mass Casualty System CBRN Incident Pandemic Outbreak Hurritane Natural Disaster RTMW Defines Number of Casua Nature of Incident (s)
 Medical Trauma
First Responder Hazards Disaster Site(s) RTMW Users Incident Management Operations Center Ability to view across all incidents at once Public Health -Track Incoming COLD Authority Casualties (Who, What, Internet - Web Services ZONE Where they are coming from, problem priority) HOT ZONE WARM - CBRN Protection Hospitals ZONE - Improved resource management (e.g. bed FLOW OF CASUALTIES RTMW availability) Field Tent Central Alternate Hospitals Casualty Makeshift Treatment Care Center (e.g. Community Facility Centre, Stadium, School) Restricted Access View Relief - Ability to provide the Agencies/ - Identify disaster site public with information NGOs Decontaminate as needed on their loved ones Categorize casualties by (name, location) while severity of injuries maintaining privacy Assign and track casualty's status from disaster site to hospital AMITA. Identify casualties

**SPONSOR: USNORTHCOM DEVELOPER: AMITA** Corporation

**CONTACT:** Randy Wong randyw@amita.com

RTMW is a software tool for military and civilian front-line emergency responders and medical personnel to collect and share casualty information. It improves emergency care during a mass casualty situation including a CBRNE event, while helping to protect medical workers.

It provides simultaneous access to a central source of casualty data for patient tracking including alternate hospital location, and medical problem status details. Designed by first responders for first responders, RTMW can be used at any mass casualty incident, international, regional or local.

Public health officials can see casualties across multiple incidents for better resource management, while NGOs can work, with a restricted view, to determine where a family member is located.

Information can be instantly sent to command posts and to receiving hospitals of incoming patient symptoms and patient loading.

## **Coalition Shared Information Environment**

2. COALITION INFORMATION SHARING ● 5. NET CENTRIC ENTERPRISE SERVICES ●





operates as a service operates as a service provider to the domain offering content (from other domains) and data protection/dissemination (to other domains)

- COSINE is a mechanism to transport data between two or more COI's
- COSINE utilises SOAP as an information container and implements a protocol-neutral transport layer to ease propagation through BPDs. Currently sup-ported HTTP/SMTP/TCP
- Clear text products only in the protected doma
- Keys protected on the SGS (hardware or software)
- tion operations only on SG
- COSINE operates with both SOA and Legacy architectures. COSINE provides web service interfaces but can also integrate with legacy file server arrange ments.
- Boundary Protection Devices (BPD) are optional depending on COI requirements
- which is a proposed NATO solution for interconnecting separate security domains
- Asynchronous messaging service
- Polling mechanism supported
- SG exposes web service interface enabling the ease of integration between national systems and COSINE
- Document is controlled at source
- SG provides discovery services enabling a domain to discover the existence of documents
- The ability to rapidly and flexibly create Community of Interests (COIs)

**SPONSOR:** NATO (ACT, ACO); USA: France: Spain **DEVELOPER: NATO NC3A CONTACT:** Anthony Newton anthony.newton@nc3a.nato.int +31 70 374 3531

COSINE facilitates the sharing of information within a multi-domain, secure, coalition architecture between allied and coalition partners.

COSINE documents are pulled from source, rather than pushed, in order to preserve/ protect source management.

A fundamental principal of the COSINE architecture is that control of product always remains with the data owner/publisher. This ensures that COSINE users can rapidly adapt to operational situations such as changes in the coalition membership or information release/sharing policies.

COSINE facilitates information management and collaboration between interconnected systems. Functionality includes automatic/semi-automatic information publication, dissemination, discovery and retrieval capabilities. Inter-process communication and data transfer is based on the use of Web services standard technology.